

## ABSTRACT

A method for making a carbon nanotube-based field emission display device includes the following steps: providing an insulative layer (22) having a first surface; depositing a layer of catalyst (26) on the first surface of the insulative layer; forming a spacer (28) having a number of openings therein such that patterned areas of the layer of catalyst are exposed in the openings; forming arrays of carbon nanotubes (30) extending from the layer of catalyst in the openings; forming a cathode electrode (34) on a top of each of the arrays of carbon nanotubes; forming gate electrodes (40) on a second, opposite surface of the insulative layer offset from the patterned areas; removing portions of the insulative layer corresponding to the arrays of carbon nanotubes so as to expose the arrays of carbon nanotubes; and attaching an anode electrode (50) having a phosphor screen (52) to the above obtained structure.